

ATC

SignaVision 5000

The image is a composite of three panels illustrating a flight simulation environment. The left panel shows a night or dusk sky with stars and scattered clouds. The middle panel shows a flight simulator cockpit view with a runway and approach lights. The right panel shows the "Instructor's Console" software interface.

Left Panel:

Stars with a slight haze and scattered stratocumulus are subtle features of the SignaVision 5000.

Middle Panel:

Dusk, night, daylight or anytime, in 30 minute increments, is instructor controlled.

Right Panel: Instructor's Console

ATC Flight Simulator Co. - SignaVision 5000

Instructor

Approach Lighting

- MALSR
- SSALR
- ALSF1
- ALSF2
- MALSF
- None

VASI

- 2 light
- Dual 2 light
- Dual 3 light
- Dual 6 light
- Off

Runway Control

Runway IN USE: LAX 25L

Standby Runway: SANTA BARBARA ILS RWY 7

SWAP

Environment

Visibility: 3200 feet

Cloud: 3000 feet Thickness: 5200

Time: 14:30 Day Even Night

Offsets

- Up
- Down
- Left
- Right
- Roll
- Pitch

Pilot's Height Above Runway: 9.2 feet

EXIT SAVE

Bottom Right Panel: Instructor's Console (Different Configuration)

ATC Flight Simulator Co. - SignaVision 5000

Instructor

Approach Lighting

- MALSR
- SSALR
- ALSF1
- ALSF2
- MALSF
- None

VASI

- 2 light
- Dual 2 light
- Dual 3 light
- Dual 6 light
- Off

Runway Control

Runway IN USE: LAX 25L

Standby Runway: SANTA BARBARA ILS RWY 7

SWAP

Environment

Visibility: 1200 feet

Cloud: 1000 feet

Time: 14:30 Day Even Night

Offsets

- Up
- Down
- Left
- Right
- Roll
- Pitch

Pilot's Height Above Runway: 9.2 feet

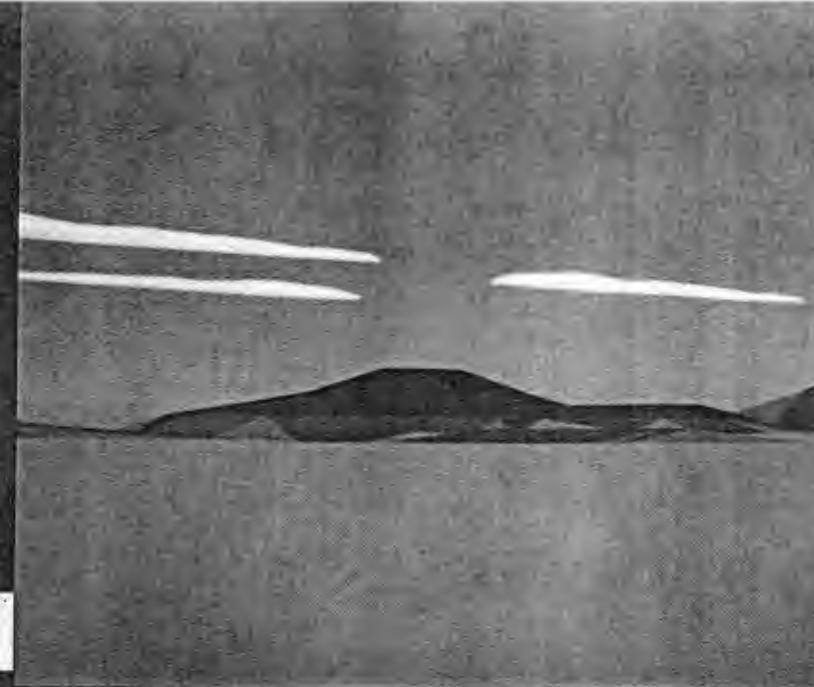
EXIT SAVE

Notes from the image:

- A large white arrow points from the "Runway IN USE" field in the top right window down to the "Runway IN USE" field in the bottom right window.
- A large white arrow points from the "Standby Runway" field in the top right window down to the "Standby Runway" field in the bottom right window.
- A small white arrow points from the "Pilot's Height Above Runway" field in the top right window down to the "Pilot's Height Above Runway" field in the bottom right window.

All photographs in this brochure are actual scenes displayed by the SignaVision 5000 and are not retouched or enhanced in any manner.

Valley fog can provide many training and decision scenarios. Fog density and depth are controlled by the instructor.



Airport environment complexity enhances depth perception. The instructor controls approach lighting systems along with many other factors.



More than 16,000,000 colors enhance the flat shading of polygons.



Multiple airport configurations are available.



A realistic complex scene requires thousands of polygons. The SignaVision 000 can display 10,000 polygons on the screen while maintaining an update rate of 30 frames per second. The data base may contain over 1,000,000 polygons.



Polygon Performance

210,000 polygons/sec (7000 quads at 30 Hz) or 210,000 polygons/sec (3500 quads at 60Hz) or 300,000 polygons/sec (10,000 triangles at 30 Hz) or 300,000 polygons/sec (5000 triangles at 60 Hz).

Transport Delay

3 field times or 50 milliseconds for a 30 Hz update and 2 field times or 33 milliseconds for a 60Hz update.

Internal Accuracy

32 bit IEEE floating point format.

Lights and Light Affects

Up to 32,000 light points per channel. If lights are larger than 2 pixels, the number of lights per channel will reduce. Virtually unlimited arrangements of light strings are possible, e.g. flashes, strobes, fades with distance, intensity variations and color changes with view angles (eg: VASI and approach lighting systems). All polygons have a luminosity factor. Control of each surface luminance is available, regardless of sun angle.

Display Resolutions and Capabilities

1024 lines X 1024 pixels - single channel.

512 lines X 512 pixels - four channels. 24 bit, (over 16 million) true colors, double buffered standard.

Multiple Channel Operation

One PC interface board will drive up to 4 SignaVision 5000 systems.

Control Program

A PC resident program allows users to change all parameters and control characteristics in real time, eg: instant changes to the time of day, levels of haze, lights, direction and velocity of targets, windows. In a networked environment, control may be made from another remote host.

Rendering

Flat shading of polygons. The application of comprehensive fog and haze effects across all polygons give a convincing impression of smooth shading.

Levels of Detail

Unlimited levels of detail may be switched in by range from the eye-point.

Anti-aliasing

In low resolution mode a pixel averaging algorithm is applied to provide anti-aliasing. In addition, gradual fading of objects less than one pixel in size is performed eliminating any occurrences of "popping".

Fog and Clouds

Up to 4 independent layers at any density and altitude.

Power and Environmental

Power: 180 Watts, 90 to 264 volts AC, 47 to 63 Hz universal power supply.

Safety: VDE, UL CSA approvals.

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The photos in this brochure may not be representative of the current production model.

